

From: glowbugs@sco.theporch.com Mon Mar 17 21:07:46 1997
Return-Path: <glowbugs@sco.theporch.com>
Received: from sco.theporch.com (sco.theporch.com [207.234.31.38])
by uro.theporch.com (8.8.5/AUX-3.1.1)
with ESMTP id VAA28987 for <shimshon@uro.theporch.com>;
Mon, 17 Mar 1997 21:07:40 -0600 (CST)
From: glowbugs@sco.theporch.com
Received: from sco.theporch.com (localhost [127.0.0.1])
by sco.theporch.com (8.8.5/SCO-5.0.2) with SMTP
id DAA03250; Tue, 18 Mar 1997 03:06:04 GMT
Date: Tue, 18 Mar 1997 03:06:04 GMT
Message-Id: <Pine.LNX.3.91.970317214736.31112B-100000@trixie.qrp.com>
Errors-To: ws4s@infoave.net
Reply-To: glowbugs@sco.theporch.com
Originator: glowbugs@sco.theporch.com
Sender: glowbugs@sco.theporch.com
Precedence: bulk
To: Multiple recipients of list <glowbugs@sco.theporch.com>
Subject: GLOWBUGS digest 478
X-Listprocessor-Version: 6.0 -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@sco.theporch.com
In-Reply-To: <3.0.16.19970317210742.0adf7e18@pop.pipeline.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII
Status: 0

GLOWBUGS Digest 478

Topics covered in this issue include:

- 1) Re: Administrative, please read! IMPORTANT!
by Stan Skelton <sskelton@cln.etc.bc.ca>
- 2) Re: Administrative, please read! IMPORTANT!
by Stan Skelton <sskelton@cln.etc.bc.ca>
- 3) BA vs GB
by "William L. Fuqua III" <wlfuqu00@pop.uky.edu>
- 4) I'll be seeing you...
by mack@mails.imed.com
- 5) Re: Svetlana email address
by "Jeff Duntemann" <jeffd@coriolis.com>
- 6) regen audio coupling
by Bob Roehrig <broehrig@admin.aurora.edu>
- 7) Re: Vacuum Tube Synchronous Demodulator
by Dan Kerl <dlkerl@ro.com>
- 8) Re: BA newsgroup
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 9) Re: BA newsgroup
by Jeffrey Herman <jeffreyh@hawaii.edu>

- 10) Re:
by "Brian Carling" <bry@mail1.mnsinc.com>
- 11) Re: Administrative, please read! IMPORTANT!
by "Brian Carling" <bry@mail1.mnsinc.com>
- 12) Re: Administrative, please read! IMPORTANT!
by "Brian Carling" <bry@mail1.mnsinc.com>
- 13) Re: Glowbugs- It's Been Fun
by "Brian Carling" <bry@mail1.mnsinc.com>
- 14) Re: Administrative, please read! IMPORTANT!
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 15) Re: BA newsgroup
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 16) Re: Vacuum Tube Synchronous Demodulator
by Chris Trask <ctrask@primenet.com>
- 17) Re: Glowbugs- It's Been Fun
by macino <macino@ibm.net>
- 18) Where would the money go?
by Dave <gekko95@ix.netcom.com>
- 19) Re: Where would the money go?
by "Lawrence R. Ware" <lrware@pipeline.com>
- 20) Re: Where would the money go?
by Dave <gekko95@ix.netcom.com>
- 21) Re: Where would the money go?
by No Data Available <earwax@indy.net>

Date: Mon, 17 Mar 1997 11:01:26 -0800 (PST)
From: Stan Skelton <sskelton@cln.etc.bc.ca>
To: Conard Murray <ws4s@infoave.net>
Subject: Re: Administrative, please read! IMPORTANT!
Message-ID: <Pine.SUN.3.95.970317105739.14661A-100000@cln>

I was in on the beginnings of glowbugs from its naming to the present day. Due to other duties (Im in the middle of a difficult masters degree program) I'm not really active. The Glowbugs list was "hatched" out of a basic incompatibility with the BA list, including the cost. In order to attract "newbies" who haven't quite formed the path they will follow in amateur radio, a no-cost list like this is essential. Count me out if fees are involved.

Just my 2 cents worth.
73's VE7SKT qrp-1 #34), OHR Sprint 80, 38 Special

On Mon, 17 Mar 1997, Conard Murray wrote:

> Hi Gang,

>

Date: Mon, 17 Mar 1997 14:11:38 -0500 (EST)
From: "William L. Fuqua III" <wlfuqu00@pop.uky.edu>
To: glowbugs@theporch.com
Subject: BA vs GB
Message-ID: <199703171911.0AA17614@pop.uky.edu>

Well, I afraid I'd have to drop GB if I had to choose.
Why not subscribe to BA and if your mail program has a filter
feature just trash every item that does not have Glow Bug in
the subject. Or send BA stuff to a separate mail box so you can
have both at the price of one. There is a lot of BA traffic.

I guess you could have a subject line such as:

Subject: tube product detectors [GB]

And have the "[GB]" the key for filtering the item.

73

Bill wa4lav

William L. Fuqua III P.E. E-mail WLFUQU00@POP.UKY.EDU Phone (606) 257-4155
Department of Physics and Astronomy CP-177 Chem. Phys. Bldg.
University of Kentucky , Lexington, Ky 40506-0055

Date: Mon, 17 Mar 97 13:19:29 cst
From: mack@mails.imed.com
To: glowbugs@sco.theporch.com, jeffd@coriolis.com
Subject: I'll be seing you...
Message-ID: <9702178586.AA858633988@mails.imed.com>

I'll be here, too, Jeff. I agree that the emphasis is different here
than BA. I'll continue to do both. I really like the more relaxed
atmosphere and the emphasis on building stuff rather than
restorations.

Ray Mack
WD5IFS
mack@mails.imed.com

----- Reply Separator -----

I intend to be involved in this list or any list that succeeds it in spirit, but I fear that making it a fee-based list will cut participation by 90%--and THAT is the real problem.

I'll be here, whatever happens, and where the list goes, I'll follow.

--73--

--Jeff Duntemann KG7JF
Scottsdale, Arizona

Date: Mon, 17 Mar 1997 12:53:10 PST
From: "Jeff Duntemann" <jeffd@coriolis.com>
To: jeffreyh@hawaii.edu
Cc: glowbugs@theporch.com
Subject: Re: Svetlana email address
Message-ID: <3.0.32.19970317124432.00bf78a0@165.247.88.2>

At 12:24 AM 3/14/97 GMT, KH2PZ wrote:

>One more note about Svetlana - I received a message from Eric Barbour -
>he's inviting comments regarding amateur-applications of his company's
>tubes.

Funny this comes up today on the list. Last night a bunch of diehard homebrewers were BSing on 52.525 simplex FM in the Phoenix Metro area, and the issue of new vs. old tubes came up. N6IME remarked that people who had been replacing tubes like 811A's in GB-era rigs with new-build tubes like those coming out of Svetlana were having problems and blaming them on the tubes. The "problems" turned out to be better engineering that produced a tube with usable gain all the way to UHF--and all that that implies, from ticklish neutralization to parasitics. The period tubes would drop to unity gain at 60Mhz or so, while the new ones would go WAY beyond that. So is it a bug or a feature?

I'm glad SOMEBODY is still making 811A's. At least if I'm building my own gear I can design in whatever precautions are necessary to avoid oscillation. But for the guys trying to get an old Thunderbolt back on the

air without any obvious physical mods, this could become a *serious* problem.

I'd be curious to hear if anyone on the list has confronted problems like this with modern-manufacture tubes vis-a-vis NOS tubes.

BTW, it was a great spontaneous net last night on 52.525, and we're going to try to do it again next Sunday night, if anybody reading this list is in Phoenix Metro. (I know several are.) We talked solid-state too, but EVERYBODY who participated had worked with tubes as well. We're going to try to put a 6M AM net together as well. My Gonset CommII may soon have somebody to talk to!

--73--

--Jeff Duntemann KG7JF
Scottsdale, Arizona

Date: Mon, 17 Mar 1997 14:10:04 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: rdkeys@csemail.cropsci.ncsu.edu, glowbugs <glowbugs@theporch.com>
Subject: regen audio coupling
Message-ID: <Pine.ULT.3.95.970317140752.6299A-1000000@admin.aurora.edu>

All this talk (again) about coupling from the detector to the audio stage (or to phones) has me wondering why we just don't add a cathode follower after the detector. That would transform the high plate impedance down to less than a few K and we wouldn't have to worry about finding those high reactance chokes. What ya-all think?

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Date: Mon, 17 Mar 1997 14:10:22 -0600
From: Dan Kerl <dlkerl@ro.com>
To: glowbugs@sco.theporch.com
Subject: Re: Vacuum Tube Synchronous Demodulator
Message-ID: <332DA52E.60C6@ro.com>

I would like to take a moment to thank listmembers Chris Trask and

John Kolb for the information on synchronous detection. It has been most informative. I intend to use this detector for shortwave listening and clear-channel mediumwave broadcasts. Consequently, I'm interested in wider bandwidth that is optimum for most amateur applications. Shortwave broadcasters use full-carrier DSB at present; in the future it looks like they may be going to SSB with reduced carrier (VSB?). This assumes that they don't all go exclusively to satellite broadcasting. I will try to put it together 'when time permits', which may not be for a while with a toddler in the house :-).

I got some of the 6JH8s that AES was selling for \$2 a pop during their winter sale. This is cheap enough that I have no problems using them in projects like this.

I'm trying to determine the best way to go about choosing topology. It appears that there are two schools of thought on this issue (these observations are based upon my current understanding of the topic and may be in error):

John Costas advocates a 'phasing' approach to synchronous detection. It appears to use the technique of minimizing the quadrature component as the phase-detection technique. This appears to offer the following:

Advantages:

- o No dependence on the carrier. Completely-carrier-suppressed DSB can be used.

Disadvantages:

- o Not usable with SSB modes, since the quadrature component is missing if both sidebands are not present.
- o Requires broadband audio phase-shift network to implement sideband interference rejection. This is more difficult to realize in 'hi-fidelity' applications, requiring unreasonable matching of component tolerances.
- o Even though the opposite sideband can be rejected with the audio phasing network, the signal from the opposite sideband still influences AGC action
- o The quadrature phase detector is sensitive to phase noise. This becomes more of a problem with PLL-synthesized receivers, since most of these have 'jitter' and subsequently have more phase noise in the signal.

The other technique I'm familiar with is outlined in the 7/93 QST construction article "A Synchronous Detector for AM Transmissions" by Jukka Vermasvuori, OH2GF. This technique relies on the presence of a carrier, to which the VCO is locked directly.

Advantages:

- o Both sidebands not necessary. Sideband rejection can be accomplished with filters.
- o AGC action can be derived exclusively from the signal received.
- o Usable as a product detector by opening loop.

Disadvantages:

- o In order to maintain lock through deep carrier fades, a long time constant for the loop filter is required. This makes the radio difficult to tune without opening the loop or resorting to an adaptive filtering technique (wide if out of lock; narrow if locked). This may explain why most commercial implementations of synchronous detection use the phasing method.
- o Audio quality is now dependent on the characteristics of the sideband filter, which is also non-trivial.

At this point, I think that the filter technique may be the way to go. However, I am far from convinced and far from a complete understanding of the nuances involved in both techniques.

I've especially enjoyed the interest shown for this topic by the listmembers. It is most informative.

Dan Kerl
dlkerl@ro.com

Date: Mon, 17 Mar 1997 14:10:52 -0600
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: glowbugs@sco.theporch.com
Subject: Re: BA newsgroup
Message-ID: <3.0.32.19970317141048.00772ad8@postoffice.worldnet.att.net>

At 06:51 PM 3/17/97 +0000, you wrote:
>I had several request for the address of the BA newsgroup.
>
>rec.radio.amateur.boatanchors

>
>It works fine for me. For you that don't have newsgroups, you can dig
>out the archives using a search engine like AltaVista or pay your dues
>to the BA MAILMEN.
>
>Steve

Wait a sec,
Is that group a copy of the BA E-mail list?
Or did someone create a BA newsgroup that I've been reading for the last
several months?

Robert M. Bratcher Jr.
E-mail to:
bratcher@worldnet.att.net
Record collector, 8mm, super 8, 16 and 35mm Film collector.
I like old radio's too.
Collins, Hallicrafters, National & Hammurland are my Favorites!

Date: Mon, 17 Mar 1997 12:05:40 -1000
From: Jeffrey Herman <jeffreyh@hawaii.edu>
To: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
Subject: Re: BA newsgroup
Message-ID: <Pine.GS0.3.95q.970317115229.17951A-100000@uhunix3>

On Mon, 17 Mar 1997, Robert M. Bratcher Jr. wrote:
> Wait a sec,
> Is that group a copy of the BA E-mail list?
> Or did someone create a BA newsgroup that I've been reading for the last
> several months?

It took about a 6-month uphill battle, but we were successful in
creating a BA *newsgroup* - it is completely seperate from the
BA e-list. I know the rec.radio.amateur.misc and .policy NGs have
given many a bad impression, but the speciality groups such as
.boatanchors, .antenna, and .homebrew make wonderful reading.

Ob Tubes: I can't recall if I posted the following to GB or not,
but Svetlana Tubes is diving deeper into the amateur market.
I've got the email address of their engineers who invited queries,
so if you have any questions or problems regarding their tubes
then email svetengr@aol.com. I'm sure reasonable suggestions would
also be welcome (note "reasonable" - they are in business to make
money!).

Svetlana posted a note to rec.radio.amateur.boatanchors requesting donations of older amateur tube amps, so I take that as a good sign. If you do have an amp (they can only offer up to \$50 for it) contact them at the above address; your donations will be helping to create more amateur-based tubes!

The contact person at that email address is:
Eric Barbour
Svetlana Electron Devices

73,
Jeff KH2PZ

Date: Mon, 17 Mar 1997 16:50:49 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: Tortonese@canopus.com.ar
Subject: Re:
Message-ID: <199703172149.QAA21523@news2.mnsinc.com>

Tough request there, but there is a GREAT 50MHz site listed at:

<http://www.mnsinc.com/bry/hamlynx/hamvhf.htm>

If anyone has the information you need, it will be listed there!

On 16 Mar 97 at 1:26, Tortonese@canopus.com.ar spoke about and said:

>
> My Elmer Luis, LU2DLP and I want to build a
> 6m DSB-CW rig with tubes.
> Anyone can help us with diagrams and ideas?
> TNX in advance
>
> Carlos, LW2DFM
> tortonese@canopus.com.ar
>

*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *
** <http://www.mnsinc.com/bry/> *

Date: Mon, 17 Mar 1997 16:59:20 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: glowbugs@theporch.com
Subject: Re: Administrative, please read! IMPORTANT!
Message-ID: <199703172157.QAA22256@news2.mnsinc.com>

Well, Bob I have demonstrated that we CAN still e-mail each other as a group.

For those that have Pegasus or similar mailer programs, all you do is send a message to a whole list of fellers and when you get a reply from anyone in the group, you just send your reply to the whole bunch.

START COLLECTING e-mail addresses for everyone NOW guys!

Bry, AF4K
bry@mnsinc.com

On 17 Mar 97 at 15:37, rdkeys@csemail.cropsci.ncsu.e spoke about Re: Administrative, please read! IMPO and said:

> > Hi Gang,
> > I need your input on a matter very important to this list. Jack
> > has informed me that as of May 1, the glowbugs list will become a
> > paid-subscription-only list like the BA list. The rates will be
> > \$12/year until June 1 when the rate will increase to \$20/year.
> > There is no price break for dual subscriptions, so for GB and BA
> > both you will pay \$24 this year and \$40 next year. Jack is the
> > listowner of the boatanchors list and helps maintain the hardware
> > that both the BA and GB lists run on. The hardware is owned by
> > Jack and Phil, a non-ham UNIX programmer. Let's see what the group
> > consensus is and proceed from there. Thanks and 73 all, de Conard,
> > WS4S
>
> I wish I had a unix box up at home.....(:+{{.....
>
> Alas, methinks glowbugs will have to move or vaporize. I would hate
> to see it vaporize, since there was a lot of good camaraderie
> amongst the group.....
>
> Will the listowner provide me a listing of email addresses for the
> members, and if something comes up down the road, maybe I can ask
> around for some local input (with the consensus of the individual
> members)?
>

> I don't know what I can do, but maybe I can hogwire up a unix box,
> somehow. There is a BIGGIE hamfest locally in a few weeks, and maybe
> I can pick up enough parts to put up a linux or bsd box or something
> like that.

>

> Food for thoughts.....keep it close to the vest, OK.....

>

> 73/ZUT DE NA4G/Bob UP

>

>

*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *
** <http://www.mnsinc.com/bry/> *

Date: Mon, 17 Mar 1997 16:59:20 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: glowbugs@sco.theporch.com
Subject: Re: Administrative, please read! IMPORTANT!
Message-ID: <199703172157.QAA22253@news2.mnsinc.com>

On 17 Mar 97 at 15:12, Conard Murray spoke about Administrative, please read! IMPORTANT and said:

> Hi Gang,
> I need your input on a matter very important to this list. Jack has
> informed me that as of May 1, the glowbugs list will become a
> paid-subscription-only list like the BA list. The rates will be
> \$12/year until June 1 when the rate will increase to \$20/year. There
> is no price break for dual subscriptions, so for GB and BA both you
> will pay \$24 this year and \$40 next year.

There HAS to be another way to do this.

I am not prepared to fork over \$40 just to communicate!
I appreciate the service theporch has provided, but this fee
is going to be beyond the reach of some of us, myself included.

May I suggest that we start a USENET NEWSGROUP similar to:

rec.radio.amateur.boatanchors

(Everyone be SURE to take a look at THAT newsgroup, it is REALLY
great if you are into the old tube stuff!)

It is not hard to get one going - only takes a few people to petition to start one!

It could be called:

rec.radio.amateur.glowbugs

or

rec.radio.amateur.tubes

etc.

What do you all think about this as an alternative?

Date: Mon, 17 Mar 1997 17:11:03 +0000
From: "Brian Carling" <bry@mail1.mnsinc.com>
To: pelt@vt.edu, glowbugs@sco.theporch.com
Subject: Re: Glowbugs- It's Been Fun
Message-ID: <199703172209.RAA23055@news2.mnsinc.com>

On 17 Mar 97 at 15:50, Randy Pelt spoke about Glowbugs- It's Been Fun and said:

> Well guys, it's been fun. Will miss all the good tube stuff that
> comes through here. I've really enjoyed the technical and
> misc.comment stuff that has come down this listserv, and I think I
> understand the reasons behind the provider wanting to charge, but I
> elect not to pay.

Same here Randy, but DON'T give up so fast!

There are MANY alternatives in today's Internet system.
I really believe we can easily find a no-pay alternative that will work just as well if we put our heads to it.

After all - scrounging and comprommising are two things hams are great at when it comes to designing communications systems!

Right? - 72.5 - Bry

*** 73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA *
** E-mail to: bry@mnsinc.com *
*** See the great ham radio resources at: *

** <http://www.mnsinc.com/bry/> *

Date: Mon, 17 Mar 1997 17:16:18 -0600
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: glowbugs@sco.theporch.com
Subject: Re: Administrative, please read! IMPORTANT!
Message-ID: <3.0.32.19970317171542.0076ef70@postoffice.worldnet.att.net>

At 10:46 PM 3/17/97 +0000, you wrote:

>On 17 Mar 97 at 15:12, Conard Murray spoke about Administrative, please
>read! IMPORTANT and said:

>

>> Hi Gang,

>> I need your input on a matter very important to this list. Jack has
>> informed me that as of May 1, the glowbugs list will become a
>> paid-subscription-only list like the BA list. The rates will be
>> \$12/year until June 1 when the rate will increase to \$20/year. There
>> is no price break for dual subscriptions, so for GB and BA both you
>> will pay \$24 this year and \$40 next year.

>

>There HAS to be another way to do this.

>

>I am not prepared to fork over \$40 just to communicate!

>I appreciate the service theporch has provided, but this fee

>is going to be beyond the reach of some of us, myself included.

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>May I suggest that we start a USENET NEWSGROUP similar to:

>

>rec.radio.amateur.boatanchors

>

>(Everyone be SURE to take a look at THAT newsgroup, it is REALLY
>great if you are into the old tube stuff!)

>

>It is not hard to get one going - only takes a few people to
>petition to start one!

>

>It could be called:

>

>rec.radio.amateur.glowbugs

>

>or

>

>rec.radio.amateur.tubes

>

>etc.

>

>What do you all think about this as an alternative?

I already suggested rec.radio.amateur.glowbugs either yesterday or today.
Lets find out how to start a newsgroup going.
I'm all for it!

Robert M. Bratcher Jr.

E-mail to:

bratcher@worldnet.att.net

Record collector, 8mm, super 8, 16 and 35mm Film collector.

I like old radio's too.

Collins, Hallicrafters, National & Hammurand are my Favorites!

Date: Mon, 17 Mar 1997 17:25:47 -0600

From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>

To: Jeffrey Herman <jeffreyh@hawaii.edu>

Cc: glowbugs@sco.theporch.com

Subject: Re: BA newsgroup

Message-ID: <3.0.32.19970317172510.006aae24@postoffice.worldnet.att.net>

At 10:05 PM 3/17/97 +0000, you wrote:

>

>On Mon, 17 Mar 1997, Robert M. Bratcher Jr. wrote:

>> Wait a sec,

>> Is that group a copy of the BA E-mail list?

>> Or did someone create a BA newsgroup that I've been reading for the last
>> several months?

>

>It took about a 6-month uphill battle, but we were successful in
>creating a BA *newsgroup* - it is completely seperate from the
>BA e-list. I know the rec.radio.amateur.misc and .policy NGs have
>given many a bad impression, but the speciality groups such as
>.boatanchors, .antenna, and .homebrew make wonderful reading.

So please tell me how you created the BA newsgroup?

As far as the glowbugs members E-mailing the group directly we could do
that IF everyone had a list of ALL the members. Or I could be a "manual"
reflector from my Eudora program till we got a newsgroup or another
reflector started.

What do you think?

Should everyone send me an E-mail address?

I need to know plus I want to keep the group together!

Robert M. Bratcher Jr.

E-mail to:

bratcher@worldnet.att.net

Record collector, 8mm, super 8, 16 and 35mm Film collector.

I like old radio's too.

Collins, Hallicrafters, National & Hammurland are my Favorites!

Date: Mon, 17 Mar 1997 17:27:33 -0700 (MST)

From: Chris Trask <ctrask@primenet.com>

To: Dan Kerl <dlkerl@ro.com>

Subject: Re: Vacuum Tube Synchronous Demodulator

Message-ID: <Pine.BSI.3.95.970317171353.5159A-100000@usr09.primenet.com>

Dan (and, of course, the group),

There is another approach which is not widely used for recovering AM/DSB full carrier by way of Synchronous Demodulation. Since the signal does not have zero-crossings in the carrier, as with DSBSC, the signal, after proper filtering, can be passed through a limiter to recover the carrier. This recovered carrier is then applied to the L0 grid (or the deflection plates) of the sheet-beam modulator. IT must be applied either in-phase or 180-degrees out of phase for maximim signal recovery.

In the text "Digital and Analog Communication Systems," (Macmillan, 1993), John Couch describes a similar system on pp. 312-313 intended for DSBSC systems. Here, the signal is first passed through a square-law device, essentially doubling the carrier frequency. After going through a limiting stage, the recovered $2 \times f_0$ carrier is divided by two, and then used as the L0. Since DSBSC has carrier reversals, the squaring is necessary to "remove" the phase reversals and therefore deliver a usable carrier after division by two.

With AM, the square-law and dividing stages are not necessary. I have used this approach as the basis for the design of an AM receiver for ISM applications, and it works just fine. It will work equally well with vacuum tubes. I would recommend using a BALANCED limiter, feeding the output differentially to the deflector plates of the sheet-beam modulator and applying the non-limited signal to the control grid. This gets rid of the messy (and expensive) PLL.

Note that the signal must be well-filtered prior to the limiter, or else other signal carriers will show as well at the demodulator. With crystal or mechanical filters, this should not be a problem.

I'm anxious to see how well Dan's demodulator works.

I gotta go.

Regards,

Chris

[illegible]

Circuit Design for the RF Impaired

Chris Trask / N7ZWY
Principal Engineer
ATG Design Services
P.O. Box 25240
Tempe, Arizona 85285-5240

Email: ctrask@primenet.com

Graphics by Loek Frederiks

Date: Mon, 17 Mar 1997 20:15:59 -0500
From: macino <macino@ibm.net>
To: pelt@vt.edu
Subject: Re: Glowbugs- It's Been Fun
Message-ID: <332DECCF.1214@ibm.net>

Randy Pelt wrote:

```
>
> Well guys, it's been fun. Will miss all the good tube stuff that comes
> through here. I've really enjoyed the technical and misc.comment stuff
> that has come down this listserv, and I think I understand the reasons
> behind the provider wanting to charge, but I elect not to pay.
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 \succ

> 73

>

 γ

> Ranson J. Pelt

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> pelt@vt.edu
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> QST de w4wyt

```
> ex-nz4i
```

Semper Fi

There's more than one way to skin a cat! You all (Hoosier for y'all) can get on the air, what about a Wednesday, Thursday, nite net on 40 meters? Phone or CW.

I had to laugh to myself yesterday. Some dork was wheeling a R390 around at a hamfest. He was bragging that 'internet people' would pay \$1500 for that \$500 investment he made. Are we 'internet people'?

73 Jim W9LZ

Date: Mon, 17 Mar 1997 19:42:35 -0600 (CST)
From: Dave <gekko95@ix.netcom.com>
To: glowbugs@theporch.com
Subject: Where would the money go?
Message-ID: <199703180142.TAA10672@dfw-ix5.ix.netcom.com>

Hi gang,

Sorry to hear of the situation that is transpiring with our group. Unfortunately, I will not be able to work the extra \$24 per year into the budget, given what I already allocate to internetting in general and ham radio.

My question is where will this money go? Last I heard, Conard said there were about 250 members of the group. That works out to be \$6000 per year (\$24 per user, 250 users) to The Porch. I realize computers are spendy, but that seems like ALOT of money per year just to host a rather small mailing list. Afterall, some lists out there are THOUSANDS of users long and cost much less to subscribe, or are free.

Profits are a good thing, and I am certainly for making a reasonable one. But this 'tax' could easily dismantle the group and leave The Porch without whatever much needed equipment needs to be purchased with the money! Just doesn't seem to add up to me.

Any opinions welcome.

Best of 73's

Dave WB7AWK

Date: Mon, 17 Mar 1997 21:08:10 +0000
From: "Lawrence R. Ware" <lrware@pipeline.com>
To: glowbugs@sco.theporch.com
Cc: listown@jackatak.theporch.com
Subject: Re: Where would the money go?
Message-ID: <3.0.16.19970317210742.0adf7e18@pop.pipeline.com>

At 01:43 03/18/1997 GMT, gekko95@ix.netcom.com wrote:

>My question is where will this money go? Last I heard, Conrad
>said there were about 250 members of the group. That works
>out to be \$6000 per year (\$24 per user, 250 users) to The Porch.

I'll take a try at answering this... Conrad please feel free to
correct me... :-)

At \$12 X 250 it's \$3,000 not \$6,000. Even if all 250 pay the
full \$20 next year it's only \$5,000. (This leaves out the BA
subscriptions, which also go to theporch.com, but this *is* the
glowbugs list.)

I've talked to Jack Hill a number of times and have *some* idea of
his and Phil Porch's costs:

128K ISDN circuit to the ISP, about \$120 per month, or \$1,440 year.	
128K ISDN ISP service, about \$200 per month. (Only dial up lines	
are \$20 guys,) high speed costs money...	or \$2,400 year.
ISDN Router, with support contract...	\$3,500
New dual Pentium Pro machine, "sco.theporch.com"	\$12,000.
Disk space for archives, (growing every month) \$50	or \$600 year.

	\$19,940

These are only part of the costs that I'm aware of...
The other list (BA) helps support this also, still it costs a lot
of money.

Give the gents a break, they are *not* getting rich.
Jack and Phil don't draw a salary for this. If they did, you could
add another \$60,000 to \$100,000 per year to costs.
Good sys admins and good unix programmers are not cheap.

I know, I hire them...

Many *free* lists are really just free to you, someone pays the bill. Sometimes the government, sometimes the state, sometimes the university, sometimes even private industry... It all comes out of your pocket in taxes or higher prices anyway. Our company "web site" is free, unless you buy our products, then it's built into the product costs.

Consider this and the BA lists as "toll roads." You want to ride, pay the man at the booth... The *free* roads are always available if you want to drive the long way around...

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lrware@pipeline.com - Orlando, FL -

Date: Mon, 17 Mar 1997 20:44:34 -0600 (CST)
From: Dave <gekko95@ix.netcom.com>
To: glowbugs@theporch.com
Subject: Re: Where would the money go?
Message-ID: <199703180244.UAA00719@dfw-ix5.ix.netcom.com>

To all,

Obviously those who feel The Porch is justified in the subscription cost will defend it to death, while those of us who feel it is not justified will condemn it to death.

Doesn't seem very practical to argue, I guess. I think it stinks. I did not realize WE were the SOLE source of revenue for The Porch. I would have thought they were a normal ISP and had internet subscribers. I guess I need to stand corrected. Whether it is \$5000 or \$50,000 I don't feel it is justified for the services rendered. Seems odd that it was only a necessary cost when the groups (BA and GB) got big. Just my opinion.

OK? No offense aimed at the Porch people. If they feel they need more ISDN and T1 lines to support 250 mail list users, more power to them. Must take ALot more bandwidth than

I thought to handle ASCII emails.

It's been alot of fun. If anyone ever comes up with a new list that doesn't tax it's users, let me know.

Good luck to all. This has been a delightful place to hang out. I've learned alot about tubes and their application, and truly enjoyed reading of everyone's exploits. See anyone who's interested in the BA newsgroup.

Can someone please update me on the method to unsubscribe?

Many 73's to all,

Dave WB7AWK

Date: Mon, 17 Mar 1997 22:03:04 -0500 (GMT-0500)
From: No Data Available <earwax@indy.net>
To: "Lawrence R. Ware" <lrware@pipeline.com>
Subject: Re: Where would the money go?
Message-ID: <Pine.LNX.3.91.970317214736.31112B-100000@trixie.qrp.com>

Larry,

If these guys are such hotshot programmers why do they need a \$12,000 box to run a couple of mail lists? I don't know why they couldn't hack a Linux box to do the job for them.

If you're going to quote figures then why not add what they collect off the BA list?

You ARE right about it being their lists and if they want to charge for it that's their business.

73 es etc...

Charlie,N9NVV

Principal from BOS..."There's no problem so large it can't be solved by killing the user off,deleting their files, closing their account and reporting their REAL earnings to the IRS." earwax@indy.net

On Tue, 18 Mar 1997, Lawrence R. Ware wrote:

>
> I've talked to Jack Hill a number of times and have *some* idea of
> his and Phil Porch's costs:
>
> 128K ISDN circuit to the ISP, about \$120 per month, or \$1,440 year.
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>
>

End of GLOWBUGS Digest 478
